

Appln No. 10/650,348
Reply to Office Action of March 23, 2006

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AMENDMENTS TO THE CLAIMS

1. (previously presented) A method of cutting a strip of elastomeric material into segments of a desired length, the strip having a width W, the strip being formed of a plurality of tire components, at least one of the tire components being a cord reinforced component, the cords being substantially parallel and oriented in the direction of a cutting path formed across the width W of the strip; the method comprising:

moving a cutting device into cutting engagement of the strip while supporting the strip on an anvil;

positioning the cutting edge of the cutting device at a skive angle less than 10 degrees relative to the strip and at a gap distance (d) above the anvil slightly less than or equal to the thickness of the cord reinforced component;

cutting through the entire strip in a single cutting step and forming a segment.

2. (previously presented) The method of cutting segments of claim 1 further comprises the step of: orienting said cutting edge at an acute angle β relative to the strip cutting path.

3. (original) The method of cutting segments of claim 1 further comprises the steps of movably restraining the strip ahead of the cutting.

4. (previously presented) The method of cutting segments of claim 1 wherein the steps of supporting the strip include supporting the strip at an angle θ_1 , less than the skive angle α on one side of the cutting path and an angle θ_2 greater than the skive angle α on the opposite side of the cutting path.

5. (previously presented) The method of cutting segments of claim 4, wherein the location of the cutting plane occurs approximately at the location wherein the supporting angle changes from θ_1 to θ_2 .

Claims 6-19 (canceled)

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20. (previously presented) The method of claim 4 wherein there is a discontinuity in the support surface where the support angle changes from $\theta 1$ to $\theta 2$.

21. canceled.

22. (previously presented) The method of claim 1 wherein the cutting device is an ultrasonic knife.

23. (previously presented) A method of cutting an elastomeric strip into segments of a desired length, the elastomeric strip having a width W , the elastomeric strip being formed of tire components, at least one of the tire components being a cord reinforced component, the cords being substantially parallel and oriented in the direction of a cutting path formed across the width W of the strip; the method comprising the steps of:

supporting the elastomeric strip on an anvil, the anvil having a first support surface oriented at an angle $\theta 1$, and a second support surface oriented at an angle $\theta 2$ wherein the second support surface is not tangent to the first support surface forming a transition point,

positioning a cutting edge of a cutting device at a gap distance (d) above the anvil at the transition point, the gap distance (d) being slightly less than the thickness of the cord reinforced component; and

cutting the strip at a skive angle α into a segment.

24. canceled

25. canceled

26. (previously presented) The method of claim 23 wherein said cutting edge is oriented at an acute angle β relative to the strip cutting path.

27. (previously presented) The method of claim 23 wherein the cutting device is an ultrasonic knife.

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28. canceled

29. (currently amended) The method of claim 23 wherein θ_1 is less than the skive angle α and θ_2 is greater than the skive angle α , wherein skive angle α is less than 30 degrees.

Claims 30 – 32 (canceled)

33. (previously presented) The method of claim 23 wherein the first support surface is not tangent to the second support surface at the intersection thereof.

34. (previously presented) The method of claim 23 wherein θ_2 is approximately equal to the inclination of the cutting edge of the cutting device.

35. (currently amended) The method of claim 23 wherein θ_2 is about 2 degrees more than the skive angle α , wherein skive angle α is less than 30 degrees.

36. (currently amended) The method of claim 23 wherein θ_1 is about 2 degrees less than the skive angle α , wherein skive angle α is less than 30 degrees.

This listing of claims will replace all prior versions and listings of claims in the application.